to the various activities open to its members, and emphasises the use of history in everyday work.

The first paper given is entitled, "Introduction to the Literature of Historical Engineering to the year 1640," and to this is appended a valuable bibliography of books relating to early inventions. Then follow interesting papers on "The Rise and Fall of the Sussex Iron Industry," "The Mystery of Trevithick's London Locomotive," and "The Invention of Roller Drawing in Cotton-spinning," all of which are illustrated by plates. The Transactions, which are well printed, will appeal, we think, to the general reader as well as the expert.

Espace, Temps et Gravitation : la théorie de la relativité généralisée dans ses grandes lignes. Par Prof. A. S. Eddington. Ouvrage traduit de l'anglais. Par J. Rossignol. Pp. xii + 262 + iv + 149. (Paris : J. Hermann, 1921.) 28 francs net.

IN the introduction which has been written for this translation by Prof. P. Langevin we read : "Dès que m'est parvenu ce Livre où M. Eddington réussit à exposer de manière à la fois si simple, si vivante et si personnelle la marveilleuse transformation que le génie d'Einstein a introduite dans les conceptions les plus fondamentales de la Physique, j'ai pensé qu'une traduction en devait être faite pour permettre au public français de partager la joie que sa lecture m'avait fait éprouver.

"Une démarche immédiate m'apprit que l'initiative avait été prise quelques jours plus tôt par M. Jean Becquerel et que le travail était commencé dans les conditions les plus favorables, puisque je n'aurais pu proposer un meilleur choix que celui de M. Rossignol pour le traducteur, et que M. Eddington voulait bien s'assurer lui-même que les nuances, souvent délicates, de sa pensée seraient fidèlement rendues."

The French edition of Prof. Eddington's well-known book has thus appeared under ideal conditions, and it would appear presumptuous were one to express an opinion as to the merits of the translation. This edition is of greater length than the original English edition (see NATURE, vol. 106, p. 822, 1921), as it has been supplemented by a theoretical part in five sections as follows : I.—Elementary Principles ; II.—The Theory of Tensors ; III.—The Law of Gravitation ; IV.—The Mechanics of Relativity ; V.—Electricity. These sections are valuable additions to the original, and awaken regret that they were not included in the English edition. The translation will doubtless receive a warm welcome from our French colleagues.

Monograph of the Lacertidæ. By Dr. G. A. Boulenger. Volume ii. Pp. viii + 451. (London: British Museum (Natural History), 1921.) 3*l.*

THE "Monograph of the Lacertidæ," by Dr. G. A. Boulenger, the first volume of which was published in 1920, is now completed by the issue of the second and concluding volume. In collecting the materials for this work Dr. Boulenger has not been content to rely entirely on the resources of the British Museum, but has travelled widely and far over all Europe and examined the collections of all the principal Natural History Museums. He has made a special point of searching for and examining for himself the type specimens of as many species as possible. The result is a monograph based on the examination of an immense material including the greater part of the actual type specimens.

Two features of this catalogue deserve special mention. The present whereabouts of the type specimens, where known, are given, information of the greatest value to future workers, and a full list of the specimens in the collections of the British Museum gives at a glance the resources of that Institution and should be particularly useful to specialists abroad.

The monograph is at once the most complete and the most authoritative on the Lacertidæ that has yet appeared, and will for a long time remain the standard work on the subject. It is, we believe, the last piece of work done by Dr. Boulenger in his official capacity at the British Museum. It is a fitting climax to the long series of catalogues and monographs on fishes, amphibia, and reptiles which have marked his great services to science at the British Museum.

British Museum (Natural History) Economic Series, No. 13. *Mites Injurious to Domestic Animals (with an Appendix on the Acarine Disease of Hive Bees).* By Stanley Hirst. Pp. 107. (London: British Museum (Natural History), 1922.) 3*s.*

THIS profusely illustrated little book on the mites infesting domestic animals is the thirteenth of the series of pamphlets on economic entomology issued by the British Museum (Natural History). Like its predecessors, it is designed on strictly practical lines, and the subject-matter cannot fail to appeal to a wide circle of interested readers, from the systematic entomologist and experimental pathologist to the breeder and fancier, be it of horses, cattle, pigs, dogs, rabbits, fowls, or bees. A little more than half of the book is devoted to the important family Sarcoptidæ and the various species of mange for which members of this family are responsible. Useful hints on the treatment and management of infected stock are supplied, and wherever these parasites have been known to transfer their attentions to human beings, the fact is mentioned. Parasites of this order may prove to play an important part in the transmission of infectious disease, not only from animal to animal but from animal to man ; and to the medical or veterinary entomologist searching for a possible transmitting agent of some obscure animal plague, the accurate descriptions and illustrations supplied in this book will be very helpful. An interesting feature is the appendix devoted to the description of "Isle of Wight" disease (Acarine disease of bees) and its causation by the mite *Acarapis woodi* which inhabits the tracheal tubes of infected bees

The Changing Year. By Anthony Collett. Pp. viii + 310. (London : Hodder and Stoughton, Ltd., n.d.) 15*s.* net.

MR. COLLETT has done well to collect his delightful Nature essays, originally contributed to the *Times*, and to publish them in this more permanent form. They are worthy of preservation, for Mr. Collett is a field naturalist of first rank. He has a keen and accurate eye for observation and an ear tuned to record the music of Nature which he hears around him, and he combines with these a gift of expressing what his

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senses have appreciated in simple yet delightful language which cannot fail to awaken in his reader that intense enthusiasm and love for Nature which he himself undoubtedly feels.

In this book Mr. Collett guides us pleasantly through the year, pointing out the sign-posts which mark the progress of the weeks and months: the awakening of the spring, the arrival of the birds on spring migration, the intense bustle and activity of the early months of the year, the quieter and more matured beauty of summer, the renewed activity of autumn with its preparation for the winter, and the calm peace of the winter months with always the promise of spring and life.

The book is full of useful facts and details which only the true field naturalist can acquire and observe. We regret that there is no index by means of which ready reference to these first-hand observations can be made.

Radio Receiving for Beginners. By Rhey T. Snodgrass and Victor F. Camp. Pp. 99. (London: Macmillan and Co., Ltd., 1922.) 3*s*. 6*d*. net.

THIS is a work professedly intended for those with very limited knowledge of wireless matters, but the author, in his endeavour to avoid technicalities in the introductory portion, has rather missed the opportunity of presenting the elements of the subject in a sufficiently tangible form for the reader, if really unacquainted with the principles of wireless working, to pick up readily the full meaning of the excellent chapters which follow. In these, we are conducted progressively through crystal reception, plain valve reception, regenerative working, and single and double valve amplification. A good typical arrangement of connexions is given in each case, but it is understood that many variations can prove equally satisfactory. All this part of the book is thoroughly practical, and its utility is not greatly interfered with by the fact that it refers to American conditions alone. The general hints and the chapter on aerial construction are full of useful points, and explanatory notes on some of the individual pieces of apparatus which make up the complete equipment are contained at the end. The author makes it amply clear that wireless reception requires care, skill, and practice to get really good results, and is a good deal more than buying a complete outfit and "listening in" with a telephone

Applied Calculus: An Introductory Text-book. By F. F. P. Bisacre. Pp. xvi+446. (London: Blackie and Son, Ltd., 1921.) 10*s* 6*d*. net.

THE adjective "applied" is used by Mr. Bisacre to imply "the treatment of practical problems being preceded by a fairly full discussion of the necessary theory." We thus get a competent elementary account of the differential and the integral calculus, followed by applications to curves, maxima and minima, electricity and magnetism, chemical dynamics and thermodynamics. The chapter on electricity and magnetism is too short, while that on thermodynamics is quite long. An attempt is made to clear up the mystery of limits, but the success would be more certain if the example used for the purpose were not the rather trivial one of finding the limiting value of x^2 when x becomes equal to 10. It is doubtful whether "epsilonology" is at all in place in such a book, and the practical student will scarcely be impressed with its value in view of the author's treatment. The tables should have been more extensive; as they stand their usefulness is very limited.

Interesting features of the book are photographs and biographies of pioneers in the calculus and its applications. The mottoes at the heads of the chapters are often cleverly chosen, like "A snapper-up of unconsidered trifles" for the chapter on integration.

S. B.

The Care of the Adolescent Girl: A Book for Teachers, Parents, and Guardians. By Dr. Phyllis Blanchard. Pp. xxi+201. (London: Kegan Paul and Co., Ltd., 1921.) 7*s*. 6*d*. net.

IN her foreword to this book, Dr. Phyllis Blanchard explains that its object is to help teachers, parents, and guardians to provide adolescents with definite information concerning their own nature and to point the way to a proper utilisation of their energies.

After introducing the views of various authorities, Dr. Blanchard considers the instincts of the adolescent girl and the resulting conflict and repressions, and later, the pathological results of these repressions. The most important chapter is that devoted to the sublimation of the sex factor into other activities.

It appears that the author considers the adolescent conflict as entirely sexual in nature; but its solution, which may be described as an adjustment to the perpetual mate, is not the only one in which the guardian and teacher must assist. The adjustment to society, the failure in which gives us the recluse, the crank, and the social rebel, is practically ignored. An adjustment to the conception of the infinite, failure in which leads to the conflict found in nearly all agnostics and materialists, is only dealt with as a method of sublimation of the sex factor; from this point of view the author evolves a Christianity which, as Dr. Scharlieb states in her preface, is scarcely to be recognised as Christianity by those who have been brought up in any of the orthodox schools.

Hyperacoustics. By John L. Dunk. Division II. Successive Tonality. Pp. xi+160. (London: J. M. Dent and Sons, Ltd.; New York: E. P. Dutton and Co., 1921.) 5*s*. net.

THE first division of the author's work, "Simultaneous Tonality," was published in 1916 and was shortly afterwards reviewed in these columns (vol. 98, p. 306, December 21, 1916). At least one-third of the present volume is devoted to a "brief résumé" of the earlier book, and then the author passes on to the new aspect of his subject, "Successive Tonality." The method of treatment is similar to that adopted previously, and there is little to add to the notice of the first volume. The nomenclature is so complex that a glossary, occupying six pages of the text, is provided for the convenience of the reader. The author recognises the difficulty clearly: "The jargon of each particular science is a real obstacle, not only to the acquisition of knowledge, but to the sympathetic understanding by workers in parallel fields, who, occupied with their own formulæ, tend to be repelled

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